

ABSTRACT

A display device (101) has groups of display elements (118), which are changed from one optical state to another optical state by applying a waveform sequence of potential differences. The waveform enables particles (108, 109) to occupy a position corresponding to the other optical state and includes standard reset, over-reset and grayscale drive. The standard reset part of the waveform applies a potential difference, which is proportional to a distance the particles (108, 109) must move to reach one of the extreme optical states and the over-reset is independent of the distance. Grayscale or color scale accuracy is improved and direct charge on a pixel may be balanced over time with consequent grayscale drift compensated by tuning the grayscale driving pulse.